

(Billing Code: 4150-31)

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Office of the Secretary

Findings of Research Misconduct

AGENCY: Office of the Secretary, HHS.

ACTION: Notice.

<u>SUMMARY</u>: Notice is hereby given that the Office of Research Integrity (ORI) has taken final action in the following case:

Terry S. Elton, Ph.D., The Ohio State University: Based on the reports of two investigations conducted by The Ohio State University (OSU) and additional analysis conducted by ORI in its oversight review, ORI found that Dr. Terry S. Elton, Professor, College of Pharmacy and Davis Heart and Lung Research Institute, OSU, engaged in research misconduct in research supported by National Heart, Lung, and Blood Institute (NHLBI), National Institutes of Health (NIH), grants R01 HL048848, R01 HL084498, and P01 HL70294, National Institute of Child Health and Human Development (NICHD), NIH, grant R21 HD058997, National Institute on Aging (NIA), NIH, grant R01 AG021912, National Institute of Allergy and Infectious Diseases (NIAID), NIH, grant R01 AI39963, and National Eye Institute (NEI), NIH, grant R01 ES012241.

ORI found that the Respondent engaged in research misconduct by falsifying and/or fabricating data that were included in 1 R21 HD058997-01, 1 R21 HD058997-01A1, 1 R21 HD058997-01A2, 1 RC1 HL100298-01, and in:

- 1. Kuhn, D.E., Nuovo, G.J., Terry, A.V. Jr., Martin, M.M., Malana, G.E., Sansom, S.E., Pleister, A.P., Beck, W.D., Head, E., Feldman, D.S., & Elton, T.S. "Chromosome 21-derived microRNAs provide an etiological basis for aberrant protein expression in human Down syndrome brains." *J Biol Chem* 285(2):1529-43, 2010 Jan 8.
- Kuhn, D.E., Nuovo, G.J., Martin, M.M., Malana, G.E., Pleister, A.P., Jiang, J.,
 Schmittgen, T.D., Terry, A.V. Jr., Gardiner, K., Head, E., Feldman, D.S., & Elton, T.S.
 "Human chromosome 21-derived miRNAs are overexpressed in Down syndrome brains and hearts." *Biochem Biophys Res Commun* 370(3):473-7, 2008 Jun 6.
- Martin, M.M., Buckenberger, J.A., Jiang, J., Malana, G.E., Knoell, D.L., Feldman, D.S.,
 & Elton, T.S. "TGFß1 stimulates human AT1 receptor expression in lung fibroblasts by cross talk between the Smad, p38 MAPK, JNK, and PI3K signaling pathways." *Am. J. Physiol. Lung Cell. Mol. Physiol.* 293(3):L790-9, 2007 Sept. (Retracted: *Am. J. Physiol. Lung Cell. Mol. Physiol.* 302(7):L719, 2012 Apr.)
- 4. Martin, M.M., Buckenberger, J.A., Jiang, J., Malana, G.E., Nuovo, G.J., Chotani, M., Feldman, D.S., Schmittgen, T.D., & Elton, T.S. "The human angiotensin II type 1

receptor +1166 A/C polymorphism attenuates microRNA-155 binding." *J Biol Chem* 282(33):24262-9, 2007, Aug 17.

- 5. Martin, M.M., Buckenberger, J.A., Knoell, D.L., Strauch, A.R., & Elton, T.S. "TGF-beta(1) regulation of human AT1 receptor mRNA splice variants harboring exon 2." *Mol Cell Endocrinol* 249(1-2):21-31, 2006 Apr 25.
- 6. Duffy, A.A., Martin, M.M., & Elton, T.S. "Transcriptional regulation of the AT1 receptor gene in immortalized human trophoblast cells." *Biochim. Biophys. Acta.* 1680(3):158-70, 2004 Nov 5.

As a result of its investigation, OSU has recommended that all of the above publications be retracted.

Specifically, ORI finds that Respondent:

- falsified and/or fabricated Western blots in an NIH grant application in three submissions of the same grant application:
 - Figures 4, 7, 11C: 1 R21 HD058997-01
 - Figures 7B, 7E, 8B: 1 R21 HD058997-01A1
 - Figures 3C, 3F, 6C: 1 R21 HD058997-01A2

and false Western blots were also included in Figure 6 in grant application 1 RC1 HL100298-01.

- falsified and/or fabricated Western blots in eighteen (18) figures and in six (6) published papers. Specifically false and/or fabricated images were included in:
 - ► Figures 2C, 2D, 2F, 3C, 3E, 4G, 5C, 5F: *J Biol Chem* 285(2):1529-43, 2010 Jan 8
 - ► Figures 3B, 3C, 3F, 3H, 3I, 3J: *Biochem Biophys Res Commun* 370(3):473-7, 2008

 Jun 6
 - Figures 2, 3, 4B, 5B, 6, 7B, 8A, 9B: *Am. J. Physiol. Lung Cell. Mol. Physiol.* 293(3):L790-9, 2007 Sept
 - Figure 6: *J Biol Chem* 282(33):24262-9, 2007 Aug 17
 - ► Figure 6: *Mol Cell Endocrinol* 249(1-2):21-31, 2006 Apr 25
 - Figures 5, 6B, 7B, 9B: *Biochim. Biophys. Acta* 1680(3):158-70, 2004 Nov 5.

Dr. Elton has entered into a Voluntary Exclusion Agreement and has voluntarily agreed:

(1) to exclude himself from any contracting or subcontracting with any agency of the United States Government and from eligibility or involvement in nonprocurement programs of the United States Government referred to as "covered transactions" pursuant to HHS' Implementation (2 C.F.R. Part 376 *et seq*) of OMB Guidelines to Agencies on Governmentwide Debarment and Suspension, 2 C.F.R. Part 180

(collectively the "Debarment Regulations") for a period of three (3) years, beginning on November 26, 2012;

- to exclude himself voluntarily from serving in any advisory capacity to PHS including, but not limited to, service on any PHS advisory committee, board, and/or peer review committee, or as a consultant for a period of three (3) years, beginning on November 26, 2012; and
- (3) to request that the following publications be retracted:
 - *J Biol Chem* 285(2):1529-43, 2010 Jan 8
 - Biochem Biophys Res Commun 370(3):473-7, 2008 Jun 6
 - J Biol Chem 282(33):24262-9, 2007, Aug 17
 - *Mol Cell Endocrinol* 249(1-2):21-31, 2006 Apr 25
 - Biochim. Biophys. Acta. 1680(3):158-70, 2004 Nov 5.

FOR FURTHER INFORMATION CONTACT:

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John E. Dahlberg, Deputy Director

Office of Research Integrity

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